

AMENDMENTS TO THE CLAIMS

1-15. (Cancelled)

16. (Previously presented) A method for determining information regarding position and orientation of magnetic resonance (MR) tomographic slice image exposures of a patient referenced to the patient, comprising the steps:

obtaining a plurality of initial MR overview exposures of the body of a patient; electronically individualizing electronic data representing a predetermined, generalized, parameterized anatomical body model that is non-specific for any one patient, using said initial magnetic resonance overview exposures to produce an individualized body model that is individualized for said patient of whom the overview exposures were generated; and

after obtaining said plurality of initial MR overview exposures, obtaining subsequent MR slice image exposures of the patient and, in a computerized processor, automatically electronically determining patient-referenced information indicating a position and orientation of said subsequent MR slice image exposures of the patient dependent on a relative position of said subsequent MR slice image exposures with respect to the individualized body model.

17. (Previously presented) A method as claimed in claim 16 comprising producing said initial magnetic resonance overview exposures in an arrangement according to a predetermined standard.

18.(Previously presented) A method as claimed in claim 16 comprising generating said initial magnetic resonance overview exposures as cross-section exposures of the patient.

19.(Previously presented) A method as claimed in claim 18 comprising generating said cross-section exposures, comprising said initial magnetic resonance overview exposures, as a plurality of cross-section exposures with respective intervals therebetween of no greater than 50 cm.

20.(Previously presented) A method as claimed in claim 18 comprising generating said cross-section exposures, comprising said initial magnetic resonance overview exposures, as a plurality of cross-section exposures with respective intervals therebetween of no greater than 15 cm.

21.(Previously presented) A method as claimed in claim 16 comprising, in said processor, automatically electronically determining a quality of individualization of said individualized body model by individualizing said anatomical body model in successive iterations and, after each iteration, comparing the individualized body model to a structure therein that is also detectable in said initial magnetic resonance overview exposures.

22.(Currently amended) A method as claimed in claim 16 wherein said body model comprises body model parameters comprising at least one translation parameter, at least one rotation parameter and at least one scaling parameter of an entirety of the body model, in addition to parameters describing a spatial position and shape of predetermined body parts of said body model, and comprising individualizing said body model [[y]] and adjusting at least one of said body model parameters.

23.(Previously presented) A method as claimed in claim 16 comprising ,in said processor, generating a linguistic description of the position of the patient using parameter values of said individualized body model.

24.(Previously presented) A method as claimed in claim 16 comprising automatically positioning said patient dependent on a patient description entered by an operator into said processor and, in said processor, automatically electronically monitoring said patient description using parameter values of said individualized body model.

25.(Previously presented) A method as claimed in claim 16 comprising, from said processor, providing a visualizeable output of said position and orientation of said subsequent MR slice image exposures with respect to said individualized body model at a display in communication with said processor.

26.(Previously presented) A method as claimed in claim 25 comprising providing said visualized output in a form selected from the group consisting of a linguistic form and a graphical form.

27.(Previously presented) A method as claimed in claim 16 comprising using said individualized body model to automatically electronically calculate a body weight of the patient.

28.(Previously presented) A method as claimed in claim 16 comprising automatically electronically using said individualized body model to position the patient relative to a magnetic resonance scanner, for obtaining said subsequent MR magnetic resonance exposures with respect to said individualized body model.

29.(Previously presented) A method as claimed in claim 16 comprising electronically storing said individualized body model, and generating said subsequent MR magnetic resonance images of the patient at a time separated from a time at which said initial MR overview exposures of the patient were obtained, by electronically accessing the stored individualized body model.

30.(Previously presented) A non-transitory computer readable medium encoded with programming instructions in computer readable form that cause a computer to operate a magnetic resonance MR imaging apparatus to:

obtain a plurality of initial MR overview exposures of the body of a patient;

after obtaining said plurality of initial MR overview exposures, electronically individualize electronic data representing a predetermined, generalized, parameterized anatomical body model that is non-specific for any one patient, using said initial magnetic resonance overview exposures to produce an individualized body model that is individualized for said patient of whom the overview exposures were generated; and

after obtaining said plurality of initial MR overview exposures, automatically electronically determine patient-referenced information indicating a position and orientation of said subsequent MR slice image exposures of the patient dependent on a relative position of said subsequent MR slice image exposures with respect to the individualized body model.

31.(Previously presented) A control device for operating a magnetic resonance MR tomography apparatus having a scanner adapted to receive a patient therein, said control device being programmed to:

obtain a plurality of initial MR overview exposures of the body of a patient; after obtaining said plurality of initial MR overview exposures, electronically individualize electronic data representing a predetermined, generalized, parameterized anatomical body model that is non-specific for any one patient, using said initial magnetic resonance overview exposures to produce an individualized body model that is individualized for said patient of whom the overview exposures were generated; and

after obtaining said plurality of initial MR overview exposures, automatically electronically determine patient-referenced information indicating a position and orientation of said subsequent MR slice image exposures of the patient dependent on a relative position of said subsequent MR slice image exposures with respect to the individualized body model.

32. (Previously presented) A magnetic resonance (MR) apparatus comprising:
an MR data acquisition unit;
a control unit configured to operate said MR data acquisition unit to obtain a plurality of initial MR overview exposures of the body of a patient;
said control unit being configured to electronically individualize electronic data representing a predetermined, generalized, parameterized anatomical body model that is non-specific for any one patient, using said initial magnetic resonance overview exposures to produce an individualized body model that is individualized for said patient of whom the overview exposures were generated; and

said control unit being configured, after obtaining said plurality of initial MR overview exposures, to operate said MR data acquisition unit to obtain subsequent MR slice image exposures of the patient, and to automatically determine patient-referenced information indicating a position and orientation of said subsequent MR slice image exposures dependent on a relative position of said subsequent MR slice image exposures with respect to the individualized body model.